

I. Remarks

After entry of the amendment, claims 59-116 are pending.

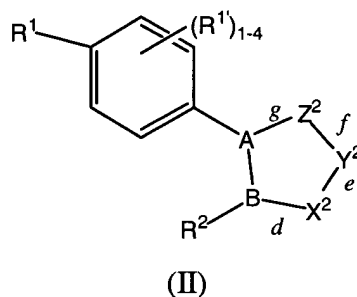
Claim 59 has been amended to include the elected compounds and the compounds disclosed in U.S. 5,760,068, WO 2000/066562, Desiraju et al, Molecules 5: 945-955 (2000) and WO 97/11704 (i.e. the art cited by the Examiner in the Office Action dated October 19, 2005), that are encompassed by the compounds of Formula II of the present invention (see status of claims below).

Claims 2-58 have been cancelled and replaced by claims 60-116. Claims 60-116 are identical to cancelled claims 2- 58 except that the claims numbers and dependency of claims 61-85, 87-108 and 110-116 have been changed so that all the claims depend from a subsequent claim.

No issues of new mater should arise and entry of the amendment is respectfully requested.

II. Status of Claims

The Examiner indicated that examination of the invention will be limited to the elected compound AND the entire scope of the invention encompassed by the compound of Formula (II):



wherein:

A-B is N-C;

when sides d and f are double bond, and sides e and g are single bonds;

-X²-Y²-Z² is:

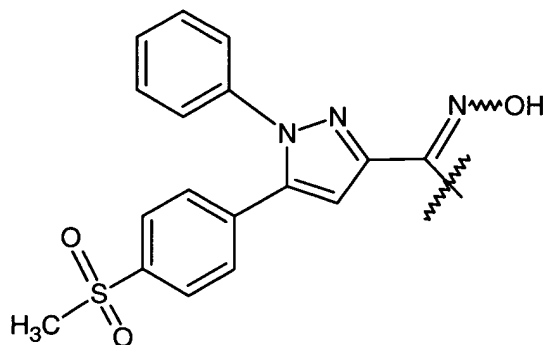
(i) =CR⁴-CR⁵=N- or

(ii) =CR^{2'}-CR⁵=N-;

R¹, R^{1'}, R^{2'} and R⁴ are as defined in claim 59;

R² is a methylsulfonyl phenyl group;

R^5 is as defined in claim 59 but limited to those having an oxime group as in structure A:
wherein the compound of structure A is:



(A)

The Examiner further indicated:

- (i) variable R^2 in claim 59 was not correctly defined;
 - (ii) when A-B is N-N, it must have a double bond on one of the Ns; and
 - (ii) the withdrawn compounds are patentably distinct from the examined invention
- and would require a separate search.

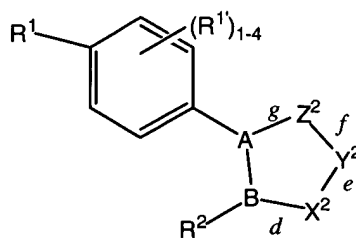
Claim 59 will be discussed as it applies to:

- (A) Structure A and Formula (II), and
- (B) Withdrawn compounds.

(A) Structure A and Formula (II)

Applicants respectfully submit that the Examiner's analysis of the elected species (i.e. compound of structure A) as it applies to the compounds of Formula (II) is incorrect. As shown below, variables R^2 and A-B are correctly defined in the specification of the present application. Therefore correction of claim 59 is not required.

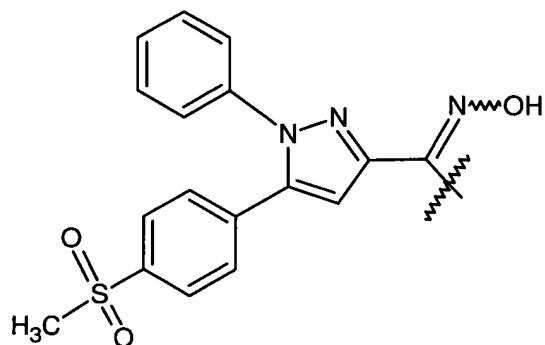
The compounds of Formula (II) are:



(II)

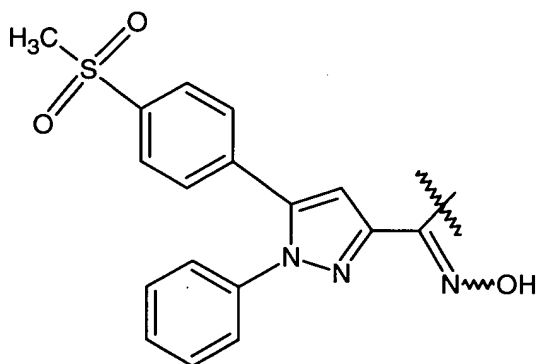
wherein R^1 , $R^{1'}$, R^2 , A-B, $-X^2-Y^2-Z^2$, d, e and f are as defined in claim 59.

The compound of structure A is:



(A)

In order to demonstrate that structure A is encompassed by Formula (II), the compound of structure A is rotated 180° so that it is in the same orientation as the compound of Formula (II) resulting in the following:



(A, rotated)

Comparing rotated structure A to formula (II), it can be observed that structure A is encompassed by compounds of Formula (II) when:

A-B is C-N (see specification at page 39, line 27);

sides *e* and *g* are double bonds, and sides *d* and *f* are single bonds (see specification at page 41, line 19);

$-X^2-Y^2-Z^2$ is $-N=CR^4-CR^5=$ (see specification at page 41, line 26);

R^1 is $-S(O)_2-CH_3$ (see specification at page 22, line 29);

$R^{1'}$ at each occurrence is independently hydrogen (see specification at page 23, line 10);

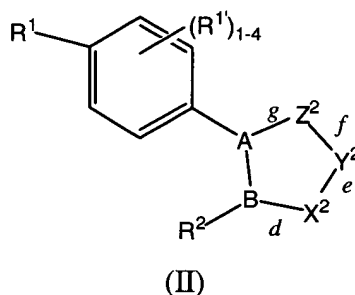
R^2 is a phenyl group (see specification at page 23, lines 17-19); and

R^4 and R^5 are as defined in claim 59.

In view thereof, Applicants respectfully submit that structure (A) is fully encompassed by the compound of Formula (II) as defined in claim 59, and respectfully submit that correction of claim 59 is not required.

(B) Withdrawn compounds

The Examiner has limited the examination of the present invention to the compounds of Formula (II):



wherein:

A-B is N-C;

when sides d and f are double bonds, and sides e and g are single bonds;

$-X^2-Y^2-Z^2$ is:

(i) $=CR^4-CR^5=N-$ or

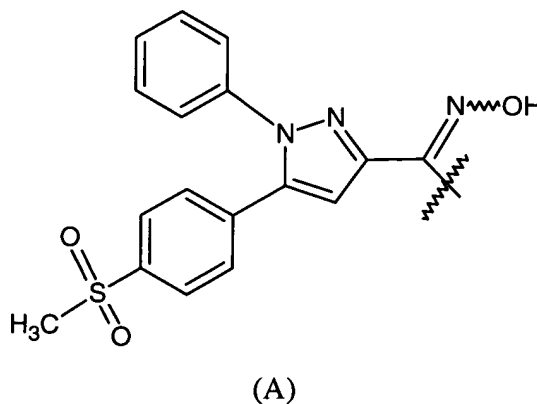
(ii) $=CR^{2'}-CR^5=N-$;

R^1 , $R^{1'}$, $R^{2'}$ and R^4 are as defined in claim 59;

R^2 is a methylsulfonyl phenyl group;

R^5 is as defined in claim 59 but limited to those having an oxime group as in structure A:

wherein the compound of structure A is:



The Examiner indicated that the withdrawn compounds differ in structure and hence would require a separate search.

Applicants respectfully submit that the Examiner has already searched additional species encompassed by the compound of Formula (II) and respectfully request that the examination of the invention should be expanded to encompass these compounds.

As discussed above and incorporated by reference herein, Applicants respectfully submit that the Examiner's analysis of the compound of Formula A as it applies to the compounds of Formula (II) of the present application is incorrect. In the Office Action the Examiner cited U.S. 5,760,068, WO 2000/066562, Desiraju et al, Molecules 5: 945-955 (2000) and WO 97/11704. Table 1 attached hereto as Exhibit A illustrates how the compound of structure A and the compounds disclosed in the prior art references relate to the compound of Formula (II) of the present application.

As indicated in Table 1, the Examiner has already searched compounds of Formula II wherein:

A-B is:

- (a) N-C;
- (b) C-N; or
- (c) N-N;

when sides *d* and *f* are double bonds, and sides *e* and *g* are single bonds,
-X²-Y²-Z²- is:

- (i) =CR⁴-CR^{4'}=CR⁵-;
- (ii) =CR⁴-CR⁵=N-; or
- (iii) =CR^{2'}-CR⁵=N-;

when sides *e* and *g* are double bonds, and sides *d* and *f* are single bonds,
-X²-Y²-Z²- is:

- (i) -N=CR⁴-CR⁵=; or
- (ii) -CR⁴=CR⁵-CR^{5'}=;

R¹ is -S(O)₂NR⁸(D¹) and

R², R⁴, R^{4'}, R⁵, R⁸ and D¹ are as defined in the present application.

In view thereof, Applicants respectfully that the Examiner expand the examination of the present application to include these additional species encompassed by the compound of Formula (II).

III. First Rejection under 35 U.S.C. §102 (b)

Claims 2, 14-16, 28-39, 55-57 and 59 are rejected under 35 U.S.C. §102(b) as being anticipated by Talley et al (U.S. Patent No. 5,760,068).

Applicants respectfully traverse the rejection and respectfully submit that the claims are not anticipated by Talley.

Tally discloses compounds and compositions comprising COX-2 inhibitor compounds of Formula (II). Talley does not disclose or suggest the claimed compounds of Formula (II) that contain an oxime group or hydrazone group. Additionally Talley does not provide any motivation or suggestion for one to modify the compounds of Formula (II) to contain an oxime group or hydrazone group.

In view thereof, Applicants respectfully submit that claims of the present invention are not anticipated by and are unobvious over Talley, and respectfully request the rejection under 35 U.S.C. §102(b) be withdrawn.

IV. Second Rejection under 35 U.S.C. §102 (b)

Claims 2, 14-16, 28-39, 55-57 and 59 are rejected under 35 U.S.C. §102(b) as being anticipated by Lohray et al (WO 2000/066562).

Applicants respectfully traverse the rejection and respectfully submit that the claims are not anticipated by Lohray.

Lohray discloses compounds and compositions comprising COX-2 inhibitor compounds of Formula (II). Lohray does not disclose or suggest the claimed compounds of Formula (II) that contain an oxime group or hydrazone group. Additionally Lohray does not provide any motivation or suggestion for one to modify the compounds of Formula (II) to contain an oxime group or hydrazone group.

In view thereof, Applicants respectfully submit that claims of the present invention are not anticipated by and are unobvious over Lohray, and respectfully request the rejection under 35 U.S.C. §102(b) be withdrawn.

V. Third Rejection under 35 U.S.C. §102 (b)

Claims 2, 14-16, 28-39, 55-57 and 59 are rejected under 35 U.S.C. §102(b) as being anticipated by Desiraju et al (Molecules 5: 945-955, 2000).

Applicants respectfully traverse the rejection and respectfully submit that the claims are not anticipated by Desiraju.

Desiraju discloses compounds and compositions comprising COX-2 inhibitor compounds of Formula (II). Talley does not disclose or suggest the claimed compounds of Formula (II) that contain an oxime group or hydrazone group. Additionally Desiraju does not provide any motivation or suggestion for one to modify the compounds of Formula (II) to contain an oxime group or hydrazone group.

In view thereof, Applicants respectfully submit that claims of the present invention are not anticipated by and are unobvious over Desiraju, and respectfully request the rejection under 35 U.S.C. §102(b) be withdrawn.

VI. Fourth Rejection under 35 U.S.C. §102 (b)

Claims 2, 14-16, 28-39, 55-57 and 59 are rejected under 35 U.S.C. §102(b) as being anticipated by Isakson et al (WO 97/11704).

Applicants respectfully traverse the rejection and respectfully submit that the claims are not anticipated by Isakson.

Isakson discloses compounds and compositions comprising COX-2 inhibitor compounds of Formula (II). Isakson does not disclose or suggest the claimed compounds of Formula (II) that contain an oxime group or hydrazone group. Additionally Isakson does not provide any motivation or suggestion for one to modify the compounds of Formula (II) to contain an oxime group or hydrazone group.

In view thereof, Applicants respectfully submit that claims of the present invention are not anticipated by and are unobvious over Isakson, and respectfully request the rejection under 35 U.S.C. §102(b) be withdrawn.

VII. Rejection under 35 U.S.C. §103

Claims 1, 2, 14-16, 28-35, 37-39 and 55-57 are rejected under 35 U.S.C. §103(a) as being obvious over Desiraju et al (Molecules 5: 945-955, 2000).

Applicants respectfully traverse the rejection and respectfully submit that the presently claimed invention is unobvious over the cited references.

As mentioned above, Desiraju does not disclose the compounds of the present invention. Additionally, there is no motivation in Desiraju for one to modify the compounds of the compounds of Formula (II) to contain an oxime group or hydrazone group.

In view thereof, Applicants respectfully submit that the claims of the present invention are unobvious over the cited references, alone and in combination, and respectfully request the rejection under 35 U.S.C. §103(a) be withdrawn.

VIII. Objection

Claims 2, 14-16, 28-39 and 55-57 are objected to for being dependent from a subsequent claim.

Applicants have renumbered the claims. In view thereof Applicants respectfully request that the objection be withdrawn.

IX Rejoinder of claims

Applicants respectfully request rejoinder of the method claims 61-71, 75-85 and 98-112 and kit claims 109-112 and 116 upon the finding of allowable compound claims.

The Petition Decision dated September 23, 2005, on page 3, lines 7-10 states:

“As the examiner has noted, upon determination of the compound/composition claims, methods of use (i.e. treatment) claims (as well as kit claims) will be rejoined as long as they contain all of the limitations of the allowed compound/composition claims and will be examined for compliance with all other aspects of the statute to determine their patentability.”

Method claims 61-71 and 75 -85 are dependent on claims 60 and 72 respectfully. As claims 60 and 72 are allowable, the Examiner is required to rejoin and examine method claims 61-71 and 75 -85.

Method claims 98-108 are dependent on claims 87 or 95. As claims 87 and 95 are allowable, the Examiner is required to rejoin and examine method claims 98-108.

Kit claims 109-112 and 116 are dependent on claim 59, 72, 87, 95 or 113. As claims 59, 72, 87, 95 and 113 are allowable, the Examiner is required to rejoin and examine kit claims 109-112 and 116.

Applicants would like to direct the Examiner's attention to U.S. Patent Nos. 5,474,995, 6,649,629 and WO 01/81332, copies of which were provided in the Information Disclosure

Statement filed on May 18, 2005. These patents disclose various methods of use for selective cyclooxygenase-2 inhibitors.

Applicants respectfully request that the Examiner be required to rejoin and allow method claims 61-71, 75-85 and 98-112 and kit claims 109-112 and 116.

X. Conclusion

Applicants respectfully request reconsideration and allowance of claims 59-116. Examiner Solola is encouraged to contact the undersigned concerning any questions about the present application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Belinda M. Lew", with a stylized flourish at the end.

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